

SYSTEM AND METHOD FOR OPTIMIZED UTILIZATION OF  
CODE RESOURCE IN COMMUNICATION NETWORKS

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**FIELD AND BACKGROUND OF THE INVENTION**

The present invention relates to a system and method for enhancing utilization of code resource in terrestrial or cellular systems, preferably to terrestrial cellular CDMA (Code Division Multiple Access) systems and methods.

The invention addresses issues related to cellular systems, e.g. terrestrial cellular CDMA systems, where there is a need for optimized utilization of code resource. This is e.g. the case for the downlink of UMTS (Universal Mobile Telecommunication System), where a finite set of channelization codes are available. It is known that problems may arise when advanced capacity enhancing features are being introduced such as e.g. smart antennas (SA).

**SUMMARY OF THE INVENTION**

According to one aspect, the invention provides a method as defined in the independent method claim.

According to a further aspect, the invention provides a system as defined in the independent system claim.

According to another aspect, the invention provides a network element as defined in the independent network element claim.

The invention provides a code efficient solution for cases where multiple beamforming channels, preferably PDSCHs (PDSCH